Microsoft

Azure Developer Community Call

Updates & Hot Topics
September 15th 2022

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- Hot Topic: Microsoft DevBox - presented by Daniel Meixner

Code of Conduct

- Microsoft's mission is to empower every person and every organization on the planet to achieve more. This includes at this event, where we seek to create a respectful, friendly, and inclusive experience for all participants. As such, we do not tolerate harassing or disrespectful behavior, messages, images, or interactions by any event participant, in any form, at any aspect of the program including business and social activities, regardless of location.

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Azure Developer Community 2.0

2 Calls - 1 Community

Formate

Die Azure Developer Community Calls gibt es in zwei verschiedenen Formaten, die immer im Wechsel stattfinden.

News & Hot Topics
Focus Topic, Azure Updates & Community News

Hol dir Updates zu aktuellen Azure-Ankündigungen, neuen Services und Community-Aktivitäten. Neben den wichtigsten News erhältst du in den News & Hot Topics-Sessions einen Deep Dive zu einem aktuellen Entwicklungs- oder Cloud-Thema.

Ask Me Anything
Wir beantworten deine Fragen

Du arbeitest an einem Azure-Projekt und brauchst einen Rat? Dann komm damit zu den Ask Me Anything-Sessions[1] des Azure Developer Community Calls. Unser Cloud-Native Experte und Host Dennis Zielke und ein Subject Matter Expert aus unserem Team beantworten dort Fragen zu einem Schwerpunktthema, geben dir Tipps und verraten Best Practices.

Community Hub

Search or jump to...   Pull requests Issues Marketplace Explore

Azure / **dev-community**   Public

Edit Pins ▾   👁 Unwatch 5 ▾   Fork 1 ▾   ⭐ Starred 15 ▾

<> Code   ⊙ Issues   ⇄ Pull requests   ▭ Discussions   ⊙ Actions   ▱ Projects   🛡 Security   ⋯ Insights   ⚙ Settings

main ▾   ⑁ 1 branch   ◌ 0 tags   Go to file   Add file ▾   <> Code ▾

🧑 kamath14-apoorva Update SEPTEMBER2022.md	048dc6a 2 hours ago	⊙ **321** commits
📁 assets	added digital swag	2 days ago
📁 awesome-azure	Added webinars, ebooks, guides	22 hours ago
📁 azure-updates	Update SEPTEMBER2022.md	2 hours ago
📁 community-calls	Create dummy.md	5 days ago
📄 .DS_Store	added digital swag	2 days ago
📄 CODE_OF_CONDUCT.md	Create CODE_OF_CONDUCT.md	last month
📄 CONTRIBUTING.md	Update CONTRIBUTING.md	5 days ago
📄 LICENSE	LICENSE updated to template	last month
📄 LICENSE-CODE	LICENSE-CODE committed	last month
📄 README.md	Update README.md	2 days ago

About

Azure Developer Community

`community` `azure` `developer`

📖 Readme
⚖ CC-BY-4.0, MIT licenses found
⊙ Code of conduct
☆ 15 stars
👁 5 watching
⑁ 1 fork

Contributors 5

Community News

Community Contributions - Highlights

Service Updates & Announcements - Top Picks

Microsoft DevBox ⭐

💥 **Preview**

Microsoft Dev Box is now in public preview. Microsoft Dev Box provides self-service access for developers to high-performance, cloud-based workstations preconfigured and ready-to-code for specific projects—all while maintaining security and corporate governance.

With Microsoft Dev Box, organizations can:

- Maximize dev productivity with ready-to-code, self-service Dev Boxes.
- Centralize governance of workstations running anywhere to maintain greater security, compliance, and cost efficiency.
- Customize dev boxes with everything developers need for their current projects.

Documentation

💫 **GA** ⭐

As part of our commitment to continuously add new capabilities to our Azure Disk Storage portfolio, live resize for Premium SSD and Standard SSD Disk Storage is now generally available.

- Resizing a disk on Azure can provide increased storage capacity and better performance for applications.
- Live resizing, can dynamically increase the storage capacity of Premium SSD and Standard SSD disks without causing any disruption to your applications.
- To reduce costs, you can start with smaller disks and gradually increase their storage capacity without experiencing any downtime.

Documentation

Virtual Machines ⭐

💥 **Preview**

Ephemeral OS disk customers can choose encryption type between platform managed keys or customer managed keys for host-based encryption.

- The default is platform managed keys.
- This feature would enable our customers to meet your organization's compliance needs.

Documentation

💫 **GA**

- The general purpose Dps v5 and Dpds v5 Azure Virtual Machines series can run popular Linux enterprise workloads such as web and application servers, open-source databases, Java and .Net applications, gaming, and media servers, and more.

- The new VMs provide up to 4GiBs of memory per vCPU in sizes with up to 64 vCPUs, 208GiB of memory, and 40Gbps networking, with and without local temporary storage.

- The Dpls v5 and Dplds v5 VM series offer one of the lowest starting price points within the general-purpose Azure Virtual Machines portfolio, providing 2GiBs per vCPU in sizes up to 64vCPUs, 128GiBs of memory, and up to 40Gbps networking with and without local temporary storage options.

- The memory optimized Eps v5 and Epds v5 VM series feature up to 8GiBs of memory per vCPU in sizes with up to 32 vCPUs, 208GiBs of memory, 40Gbps networking, with and without local temporary storage options, and are designed to meet the requirements associated with memory-intensive Linux-based workloads including open-source databases, in-memory caching applications, and data analytics engines.

All the VM series listed above are now generally available in multiple regions and feature the Ampere Altra Arm-based processor operating at up to 3.0GHz frequency. The Altra Arm-based processor was architected for scale-out cloud environments to deliver efficient performance and help reduce overall environmental impact of computing operations.

Documentation

💫 GA ⭐

As part of our continued commitment to open source solutions, we are announcing the general availability of Azure Managed Grafana, a managed service that enables you to run Grafana natively within the Azure cloud platform. Additionally, we're introducing new capabilities that include the latest Grafana v9.0 features with its improved alerting experience as well as zone redundancy (in preview) and API key support.

- With Azure Managed Grafana, you can seamlessly and securely connect with and scale to businesses' existing Azure services, enhancing observability and cloud management.

Documentation

💫 GA ⭐

- Change analysis is an observability tool that enables efficient issue triaging and root causing by centrally showing changes inside and outside of Azure web applications. Built on top of Azure resource graph, the capability securely stores resource and application configuration change data with added role-based access control (RBAC) rules on viewing sensitive information.
- Change analysis supports scalable queries across multiple subscriptions.

Several key change analysis capabilities and integrations have been released into general availability (GA).

- **Fully integrated into the Azure Monitor portal as a key data source for observability**
- **Performance and scalability improvement for large queries on change data**
- **Simplified change data presentations aggregated by subscription and resource-groups**
- **Single pane of glass observability by integrating with existing workflows and tools**
- **Diagnose and solve problems**
- **Activity log change history**
- **Metrics drill-into-changelogs**
- **Azure workbook**

Documentation

🛩️ **Updated/New Features** ⭐

Azure Monitor container insights allow you to monitor your container and Kubernetes workloads. When enabling container insights, Azure Monitor deploys a containerized collection agent.

This agent is being renamed from OMSAgent to Azure Monitor agent. The current OMSAgent name is a legacy name from the OMS product and does not reflect the branding for Azure Monitor. The Azure Monitor agent is being standardized as the single collection agent for Azure Monitor. The name change brings the agent's name in line with these updates.

- The changes will roll out in early September. There are no feature updates or functional changes to the agent in this release. You will see a new pod name in your clusters and several other related resources have also been renamed.
- See the "List of renamed resources" and "List of renamed labels" tables in the linked blog post for more details. Customers who use the "omsagent" string in their alerts, queries, and script must update them to avoid any issues.

Documentation

CosmosDB ⭐

🛬 **Updated/New Features**

- Use Azure Cosmos DB integrated cache to optimize read costs and latency for both point reads and queries.

- The Azure Cosmos DB integrated cache is an in-memory cache built-in to the Azure Cosmos DB dedicated gateway.

- The dedicated gateway is optional front-end compute that stores cached data and routes requests to the backend database.

- There's no need to make code changes in your application to use the dedicated gateway and utilize the integrated cache.

- Integrated cache is currently available for Core (SQL) API only.

Documentation

SQL Database

💥 **Preview** ⭐

In late August 2022, the following updates and enhancements were made to Azure SQL:

- Enable automatic key rotation for Customer Managed Key in Azure SQL Database and Azure SQL Managed Instance.
- Expand support to standard editions of SQL Server 2019 with link feature for Azure SQL Managed Instance.

Documentation

Event Hub

💥 **Preview** ⭐

Process your real time data streams in Azure Event Hubs using Azure Stream Analytics. The no code editor allows you to easily develop a Stream Analytics job without writing a single line of code. Within minutes, you can develop and run a job that tackles many scenarios.

There are four new features which will help you build and monitor your jobs:

- Managed identity: You can now use 'managed identity' as authentication mode in Event Hub streaming input, Cosmos DB streaming output and Azure Data Lake Storage Gen2. Managed identities eliminate the limitations of user-based authentication methods, like the need to reauthenticate because of password changes or user token expirations that occur every 90 days.
- Azure Data Lake StorageGen2 reference data: You can now use Azure Data Lake Storage Gen2 as reference data in the query. Reference data is either static or changes slowly over time. It is typically used to enrich incoming streaming and do lookups in your job.
- Metrics: You can now monitor the health of your job by viewing metrics within no code editor. The metrics shown are for the last one hour by default. You can select any time ranging from last 1 hour to 30 hours to view metrics for the job.
- Save job: You can now save your job anytime while creating it. For starting the job, you have to configure the Event Hub, transformations, and streaming outputs for the job.

Documentation

🐦 **Updated/New Features** ⭐

- The Kusto Emulator is a Docker Container encapsulating the Kusto Query Engine available locally in a Docker Container.

- The Kusto Emulator was designed to enable local development and automated testing and is a free offering under the license terms.

- Automated testing can be done using the Kusto Emulator without provisioning an Azure Service and without connection to the internet.

- Efficient way to use Kusto Query Engine for automated tests.

- Local development can be done without relying on an internet connection or a provisioned service.

Documentation

AKS / Kubernetes Service

💫 **GA** ⭐

AKS support for Kubernetes release 1.24 is now generally available.

- Kubernetes 1.24 delivers 46 enhancements.
- This release includes new changes such as the removal of Dockershim.

Documentation

💫 **GA**

- Azure Dedicated Host is a service that provides physical servers, able to host one or more virtual machines, dedicated to one Azure subscription.
- Dedicated hosts are the same physical servers used in our data centers, provided as a resource.
- You can provision dedicated hosts within a region, availability zone, and fault domain. Then, you can place AKS VMs directly into your provisioned hosts, in whatever configuration best meets your needs.

Using Azure Dedicated Hosts for nodes with your AKS cluster enables:

- Hardware isolation at the physical server level. No other VMs will be placed on your hosts.
- Control over maintenance events initiated by the Azure platform. With dedicated hosts, you can opt-in to a maintenance window to reduce the impact to your service.

Documentation

💥 **Preview** ⭐

- Azure offers a unique capability of mounting Blob Storage (or object storage) as a file system to a Kubernetes pod or application using BlobFuse or NFS 3.0 options.
- Allowing you to use blob storage with a number of stateful Kubernetes applications including HPC, Analytics, image processing, and audio or video streaming.
- If your application ingests data into Data Lake storage on Azure Blobs, you can now directly mount and use it with AKS. Earlier, you had to manually install and manage the lifecycle of the open-source Azure Blob CSI driver including deployment, versioning, and upgrades.

With this preview, you can use the Azure Blob CSI driver as a managed addon in AKS with built in storage classes for NFS and BlobFuse, reducing the operational overhead and maximizing time to value.

Documentation

💥 Preview ⭐

The AKS DevX extension for Visual Studio Code is in public preview. This extension enhances your day-to-day life as a developer on Azure Kubernetes Service and is focused on non-cluster developer experiences.

- The first feature to be added to the DevX extension is Draft, allowing you to create Dockerfiles, deployment files, and GitHub Actions easily through Visual Studio Code.

Documentation

Virtual Network

🛫 **Updated/New Features** ⭐

Network security groups (NSGs) support for private endpoints is now generally available.

- This feature provides you with the ability to enable advanced security controls on traffic destined to a private endpoint.
- To leverage this feature, you will need to set a specific subnet level property, called PrivateEndpointNetworkPolicies, to enabled on the subnet containing private endpoint resources.

At this time, Private Link network security group support is available in most public regions.

Documentation

Load Testing

💥 **Preview**

Azure Load Testing now supports load testing for private endpoints.

- You can create an Azure Load Testing resource and enable it to generate load from within your virtual network (VNET injection).

This functionality enables the following usage scenarios:

- Generate load to an endpoint that is deployed in an Azure virtual network
- Generate load to a public endpoint with access restrictions, such as restricting client IP addresses
- Generate load to an on-premises service, not publicly accessible, that is connected to Azure via ExpressRoute
- This functionality is available in the following Azure regions: Australia East, East US, East US 2, and North Europe. This will soon be available in South Central US and West US 2.

Documentation

💥 **Preview** ⭐

AutoML Code Generation is now available for all 10 AutoML tasks across tabular, images & text data.

- This feature makes AutoML a transparent solution by allowing you to select any AutoML-trained model and generate the Python training code to explore, customize, and retrain before deploying.
- AutoML in Pipelines allows you to utilize the full power of AutoML in your MLOps process.
- You can prep data, funnel it into AutoML, register the resulting best model, and set up an endpoint for scoring all within one pipeline.

Documentation

Redis Cache ⭐

💰 **Pricing Updates**

Save up to 55 percent on your usage of the Enterprise and Enterprise Flash tiers of Azure Cache for Redis by purchasing reserved instances.

- The reservation discount will automatically apply to your matching cache resources so the process of purchasing a reservation is streamlined.
- Reservations are available on a one-year basis for up to a 35 percent discount or on a three-year basis for a 55 percent discount.
- Great way to maximize the cost efficiency of your Azure deployment and ensure you get the best deal.

[Documentation](#)

Azure Regions ⭐

🌍 **Region Updates**

- 3 Availability Zones in UAE North

- New region: Qatar (with AZs)

Documentation

Azure Regions

Hot Topic:
Microsoft DevBox

Microsoft Dev Box

Daniel Meixner

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Developer Productivity

Dev Perspective

Complex setup

Onboarding new developers is error-prone and time-consuming, and if configured incorrectly, issues take weeks to emerge

Inefficient environments

Mixing configurations from a variety of projects slows down workstations and can result in issues that are hard to diagnose

Lack of compute scalability

Developers working on single, physical machines are limited to that device's compute resources and can't easily multitask between projects

IT Perspective

Security of devices

(Remote) developer teams working on a variety of devices make it harder for IT technicians to control access to sensitive source code

Cost

Budgets are limited. Spend on devices must be seen in ratio to efficiency & productivity gain.

Standards

Compliance standards differ across industries, requiring a variety of approaches to the deployment and management of dev workstations

Introducing Microsoft Dev Box

Microsoft DevBox is a virtual workplace targeting developers.

Demo

Simplicity & Self-Service
devbox.microsoft.com

Bridge the gap between dev and infra teams

Ready to code
Maximize dev productivity with ready-to-code, self-service workstations preconfigured for specific projects and tasks

Flexible but controlled
Customize workstations with everything developers need for their current projects while adhering to organizational standards

Managed and secure
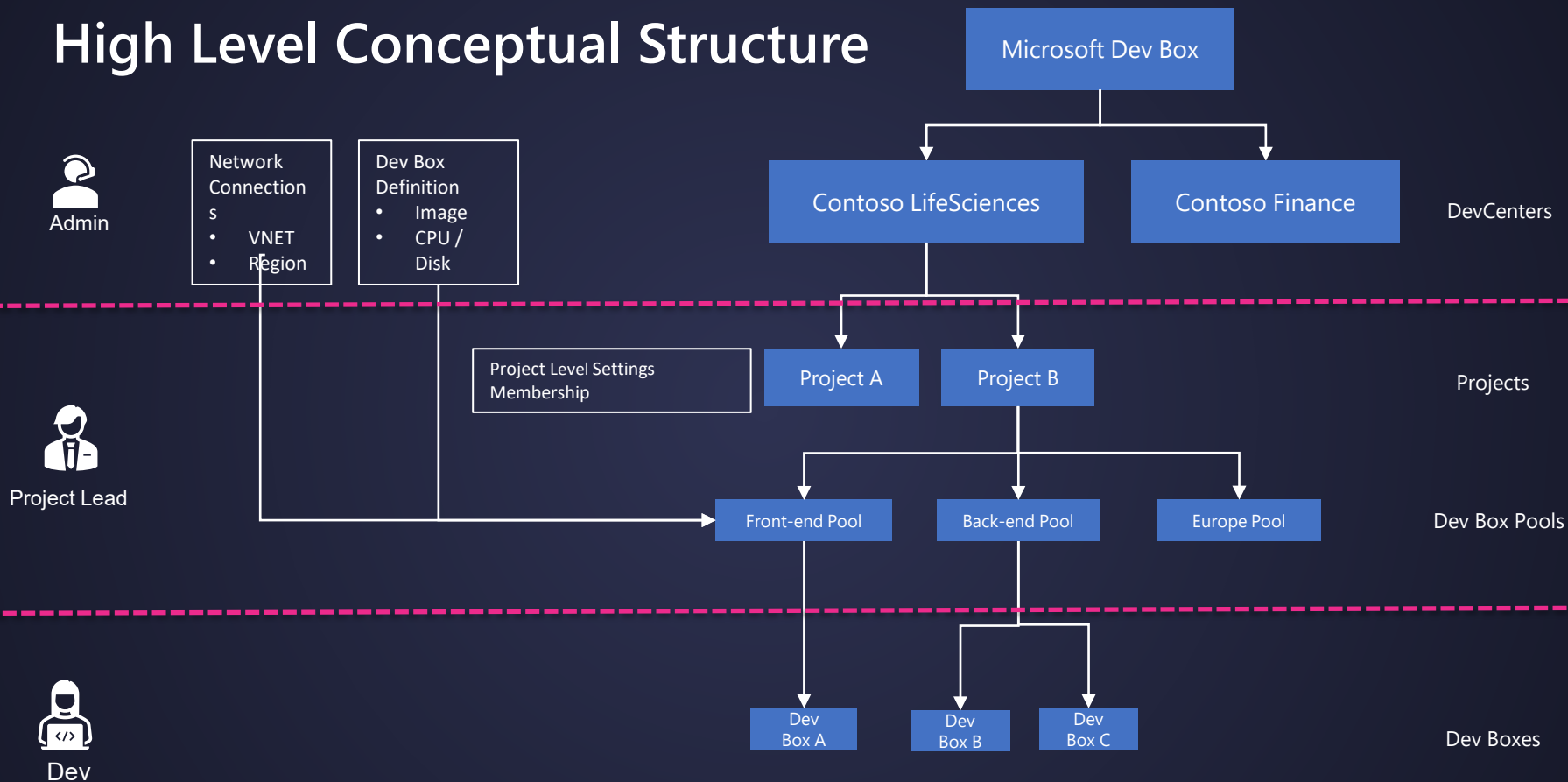Centralize governance of workstations running anywhere to maintain greater security, compliance, and cost efficiency

Provision any workload
Build any app using any dev tool and repo
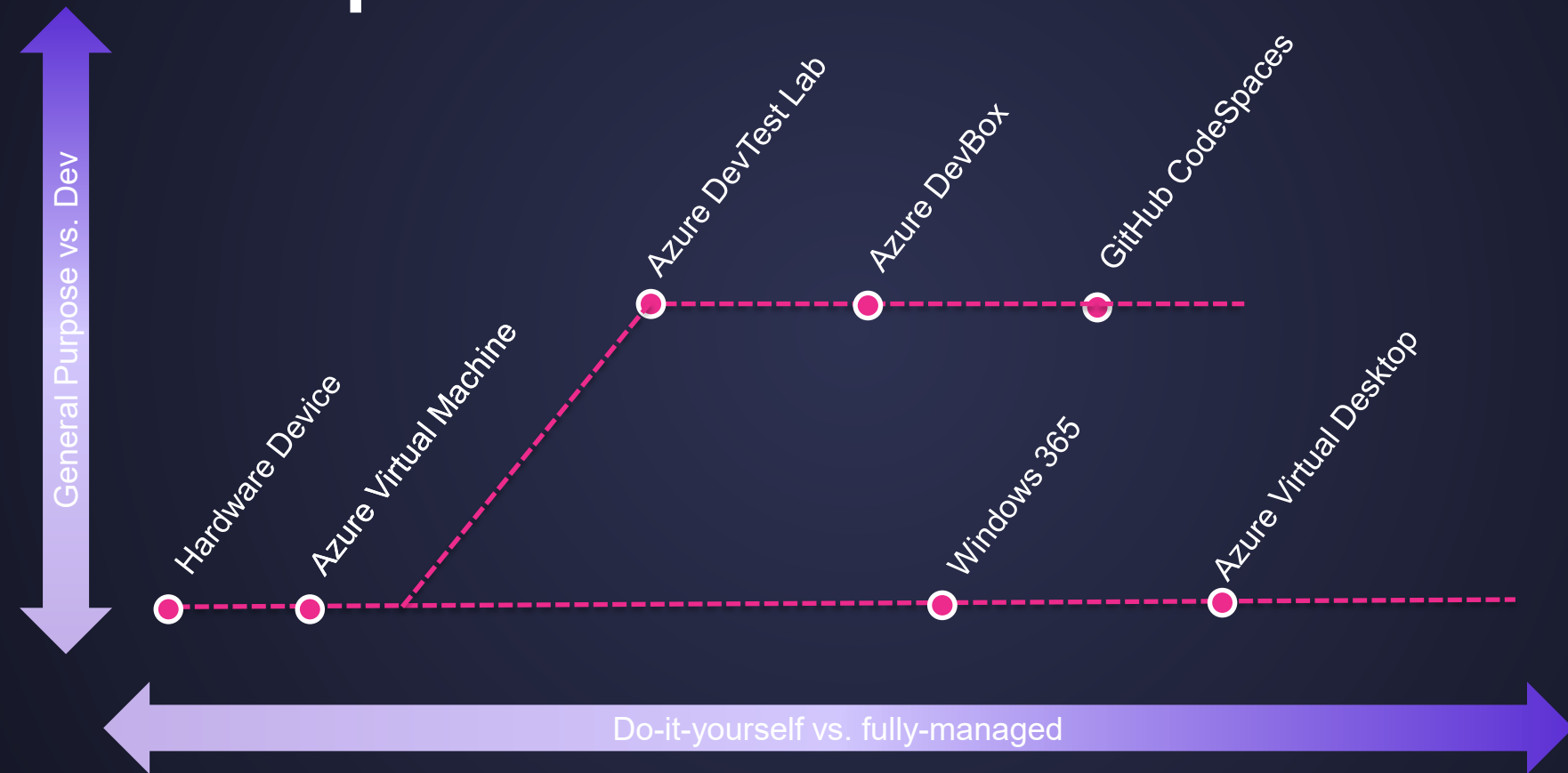
High Level Conceptual Structure

Microsoft Dev Box

Admin

Network Connections
- VNET
- Region

Dev Box Definition
- Image
- CPU / Disk

Contoso LifeSciences

Contoso Finance

DevCenters

Project Lead

Project Level Settings Membership

Project A

Project B

Projects

Front-end Pool

Back-end Pool

Europe Pool

Dev Box Pools

Dev

Dev Box A

Dev Box B

Dev Box C

Dev Boxes

Demo

Dev Center

Demo

Daily Dev Experience

Comparison

Microsoft Dev Box is in Public Preview

Self-Service, flexible & governed

Pay as you go with auto-shutdown capabilities

Join the Preview to start using Microsoft Dev Box today

https://azure.microsoft.com/en-us/services/dev-box/

Thank You